

## **JSC Employees Receive Inventions and Contribution Board Awards**

October 23, 2012

Several JSC employees received Inventions and Contributions Board Awards. During a special Space Act Awards Program emceed by Tech Transfer and Commercialization Manager David Leestma, the awards were presented to the recipients by Center Director, Mike Coats in the Building 30 Auditorium.

These awards are granted by the NASA Inventions and Contributions Board to recognize outstanding scientific or technical contributions. The Space Act Awards Program provides recognition and monetary awards for inventions and other scientific and technical contributions that have helped to achieve NASA's aeronautical, commercialization and space goals. They also are intended to stimulate and encourage the creation and reporting of similar contributions in the future.

We hope you will review the full list of JSC recipient names and new technologies:

### **PATENT APPLICATION AWARDS**

#### **Pyrometer**

Asia N. Quince

#### **Robotic Finger Assembly**

**Actuator and Electronics Packaging for Extrinsic Humanoid Hand**

**Sensing the Tendon Tension through the Conduit Reaction Forces**

**Torque Control of Under-actuated Tendon-Driven Robotic Fingers**

Myron A. Diftler

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**Actuator and Electronics Packaging for Extrinsic humanoid Hand**

**Sensing the Tendon Tension through the Conduit Reaction Force,**

**Robotic Finger Assembly**

**Bidirectional Tendon Terminator**

Lyndon B. J. Bridgwater

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**Nanoencapsulated Aerogels Produced by Monomer Vapor Deposition and Polymerization**

Thomas A. Sullivan

**Wearable for Acquisition of Resting Multi-Lead ECG**

Todd T. Schlegel

## **SOFTWARE RELEASE AWARDS**

### **Digital Television Ground Equipment Software**

Glen Steele

### **International Space Station (ISS) Crew Health Care System (CHeCS) Payload**

#### **Multiplexer/Demultiplexer (MDM0 Simulator)**

David C. Swartwout

Lorraine Williams

### **Snewt Software for Hypersonic Aerodynamics Estimation**

Katie Boyles

Phil C. Stuart

### **BUMPER-CEV (version 1.71) Micrometeoroid and Orbital Debris Risk Assessment Code, Rev. A**

Eric. Lewis Christiansen

Dana McNeill Lear

## **TECH BRIEF AWARDS**

### **Sheet Membrane Spacesuite Water Membrane Evaporator (SWME)**

Grant C. Bue

### **High Temperature Sealant Compound for use in the Vacuum and Temperatures found in Earth-Orbit**

Charles Camarda

Don Petitt

### **Flexible Plug Repair for Shuttle Wing Leading Edge**

Charles Camarda

### **Optimal Multi-Gravity, Multi-Spacecraft Trajectory Optimization and Design System – Copernicus**

Gerald Condon

### **Development of Code RITRACKS (Relativistic Ion Tracks)**

Francis A. Cucinotta

### **GCR Event-Based Risk Model (GERM) Code**

Francis A. Cucinotta

### **Motion Imagery and Robotics Application (MIRA): Standards based Robotics**

Thomas E. Diegelman

### **Glovebox for GeoLab Subsystem in HDU1-PEM**

Cynthia A. Evans

### **Debris Examination Using Ballistic and radar Integrated Software (DEBRIS)**

Anthony D. Griffith

**Dust Distributor**

Kathryn M. Hulbert

**Space to Space Communications Systems Software Defined Radio Prototype**

Cindy Jih

**Trick Simulation Environment 07 release**

Alexander S. Lin

**Pneumatic system for concentration of Micrometer-Size Lunar Soil**

David S. McKay

**Saliva Preservative for Diagnostic Purposes**

Duane L. Pierson

**Linked-List Based Multibody Dynamics (MBDyn) Engine**

Leslie J. Quiocho

**Fuel Cell/Electrochemical Cell Voltage Monitor with Isolated Communication and Direct In-Stack Power Connections**

Arturo Vasquez

**Pressure Regulator with Internal Ejector Circulation Pump, Flow and Pressure Measurement Porting, and Fuel cell System Integration Options**

Arturo Vasquez

**Improving Balance Function Using Low Levels of Electrical Stimulation of the Balance Organs**

Jacob Bloomberg

Millard F. Reschke

And Scott J. Wood

**Measurement Techniques for Clock Jitter**

Chatwin A. Lansdowne

Adam M. Schlesinger

**Security Data Warehouse Application**

Steven Gonzalez

Lynn Vernon

Robert Hennan

**Thermodynamic Vent System (TVS) for an On Orbit Cryogenic Reaction Control Engine (RCE)**

Sam Flores

Eric A. Hurlbert

Rafael Jimenez

**Wheel-Based ice Sensor**

G. Dickey Arndt

Patrick Fink

Phong H. Ngo

**Basic Operational Robotics Instructional System (BORIS)**

Brian Todd

## **Space Act Awards**

### **Development of Code RITRACKS (Relativistic Ion Tracks), Honorable Mention for Software of the Year**

Francis A. Cucinotta

### **Impact Detection System**

Eric L. Christiansen

### **Deployable Fresnel Rings**

Andrew W. Chu

Patrick W. Fink

Timothy F. Kennedy

Gregory Y. Lin

### **Low Impact Docking System (LIDS) A.k.a., International Berthing Docking Mechanism (IBDM)**

James L. Lewis

Brandan Robertson

### **Flash Infrared (IR) Thermography Contrast Computer Simulation and Data Analysis Software**

Ajay M. Koshti

### **Solar-Powered Refrigeration System, Invention of the Year**

Michael K. Ewert

### **Methods for Growing Tissue-Like 3D Assemblies (TLA) of Human Broncho-Epithelial Cells**

Thomas J. Goodwin

### **Robonaut 2 Software, Software of the Year Runner-up (2011)**

Philip Strawser

Scott Askew